


thioalkyl, thioaryl, $\text{—SO}_2\text{R}^1$, —SOR^1 , $\text{—SO}_2\text{OR}^1$, F, Cl, Br, and I; R^1 and R^2 can be the same or different, and each is selected from the group consisting of hydrogen, $\text{C}_1\text{—C}_{10}$ alkyl, $\text{C}_1\text{—C}_{10}$ heteroalkyl, aryl, heteroaryl, hydroxy, F, Cl, Br, and I, and $m = 0\text{—}2$.

5 123. The article of claim 122, wherein the structure comprises a 1-, 2- or 3- dimensional array of n monomer units.

124. The article of claim 122, wherein the four  units comprise a macrocycle.

10 125. The article of claim 124, wherein the macrocycle is selected from the group consisting of cyclams, phthalocyanines and porphyrins.

126. The article of claim 124, wherein the metal ion is a transition metal ion.

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